FIG.1

101: MODULATION SECTION

102: IFFT SECTION

103: GI INSERTION SECTION

104: TRANSMISSION RF SECTION

106: RECEPTION RF SECTION

107: PROPAGATION PATH CHARACTERISTICS ACQUISITION SECTION

108: ASSIGNMENT SECTION

109: ASSIGNMENT RESULT STORAGE SECTION

202: RECEPTION RF SECTION

203: GI REMOVAL SECTION

204: FFT SECTION

205: PROPAGATION PATH CHARACTERISTICS ESTIMATION SECTION

206: EQUALIZER

207: DEMODULATION SECTION

208: P/S SECTION

209: ASSIGNMENT INFORMATION ACQUISITION SECTION

210: TRANSMISSION RF SECTION

USER

FIG.2, 6, 7

FROM FFT SECTION 204

2051: BLOCK EXTRACTION SECTION

2052: PILOT EXTRACTION SECTION

2053: SNR ESTIMATION SECTION

2054: SNR AVERAGE CALCULATION SECTION

2055: SNR DISPERSION CALCULATION SECTION

2056: CHANNEL ESTIMATION VALUE CALCULATION SECTION

2057: CHANNEL DISPERSION CALCULATION SECTION

2058: PILOT DISPERSION CALCULATION SECTION

TO TRANSMISSION RF SECTION 210

FIG.3, 8

SUBCARRIER NUMBER

CASE

SNR DISPERSION

NORMALIZED SNR ERROR

FIG.4

1/SNR DISPERSION

AVERAGE SNR

NO TRANSMISSION

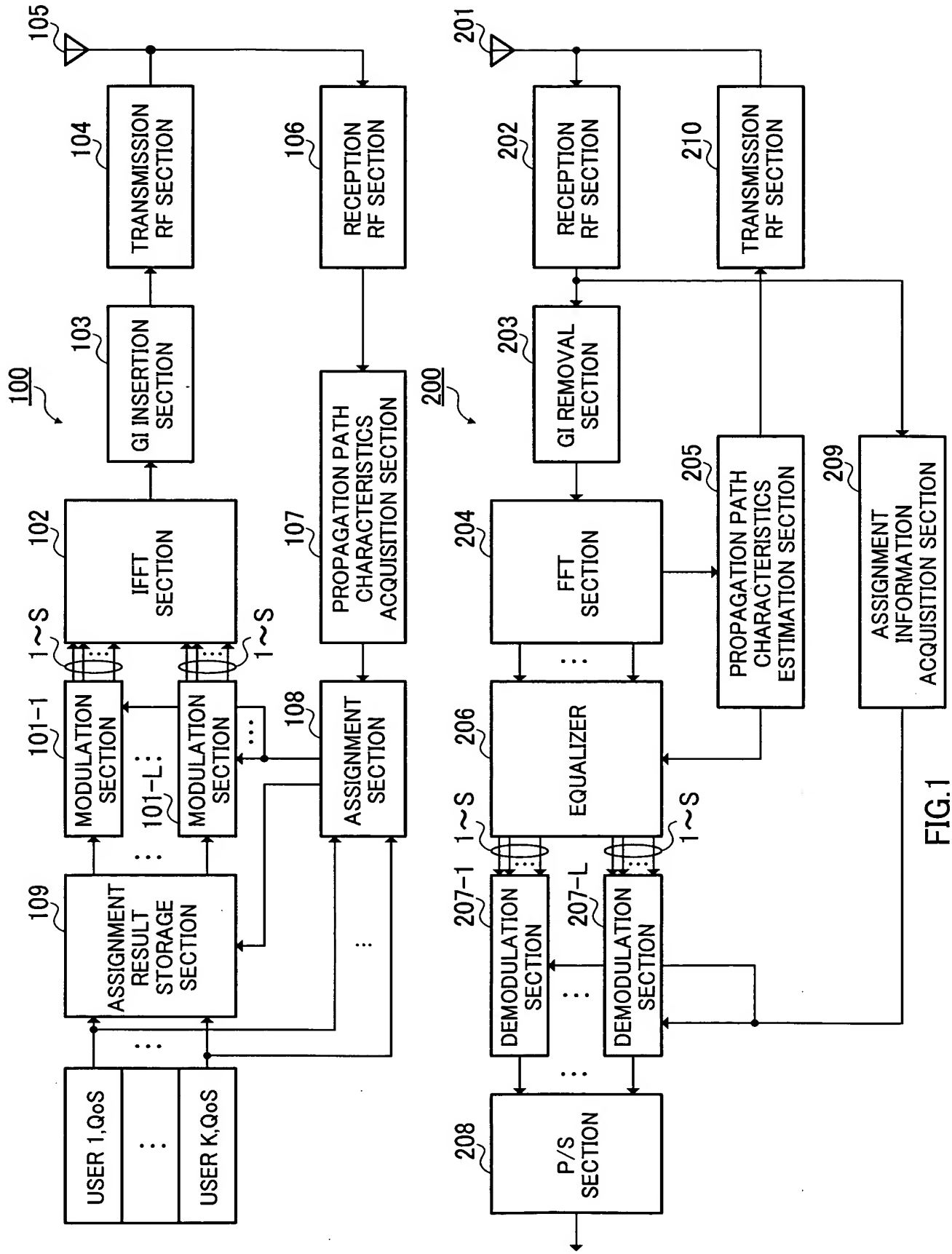
100
105
104
TRANSMISSION RF SECTION
103
GI INSERTION SECTION
102
IFFT SECTION
1~S
101-1
MODULATION SECTION
101-L
MODULATION SECTION
109
ASSIGNMENT RESULT STORAGE SECTION
USER 1,QoS
USER K,QoS
106
RECEPTION RF SECTION
107
PROPAGATION PATH CHARACTERISTICS ACQUISITION SECTION
108
ASSIGNMENT SECTION
200
201
202
RECEPTION RF SECTION
210
TRANSMISSION RF SECTION
203
GI REMOVAL SECTION
204
FFT SECTION
205
PROPAGATION PATH CHARACTERISTICS ESTIMATION SECTION
209
ASSIGNMENT INFORMATION ACQUISITION SECTION
206
EQUALIZER
207-1
DEMODULATION SECTION
207-L
DEMODULATION SECTION
208
P/S SECTION

FIG.1

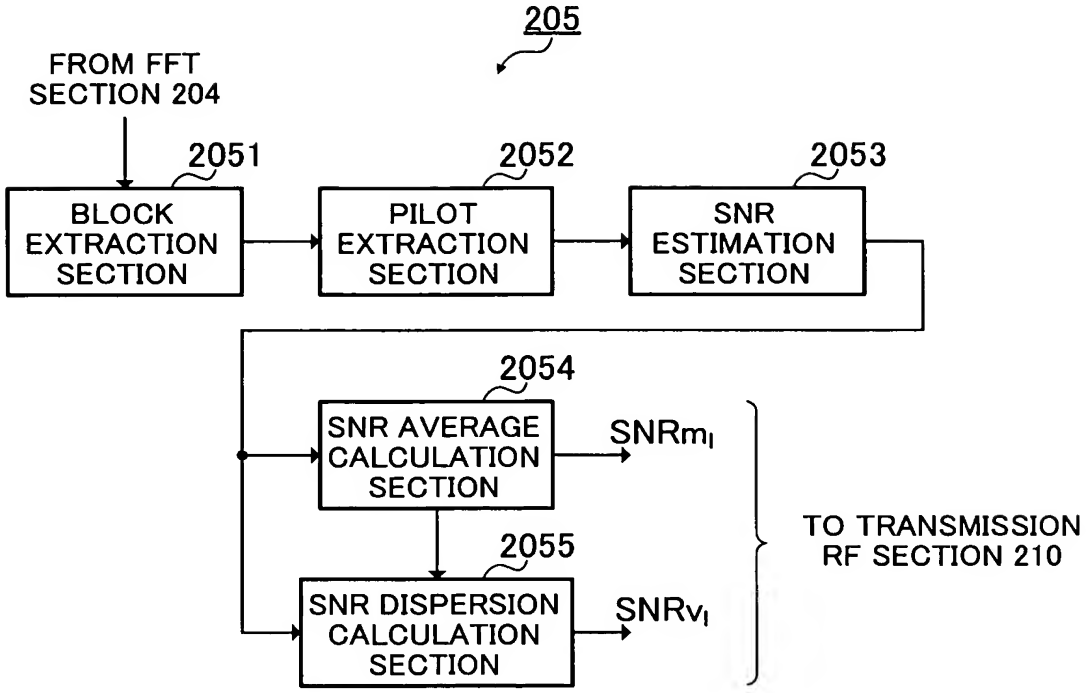

FIG.2

SUBCARRIER NUMBER	SNR		
	CASE a	CASE b	CASE c
1	2	1	4
2	3	2	3
3	2	3	2
4	3	4	1
SNR DISPERSION	0. 25	1. 25	1. 25

FIG.3

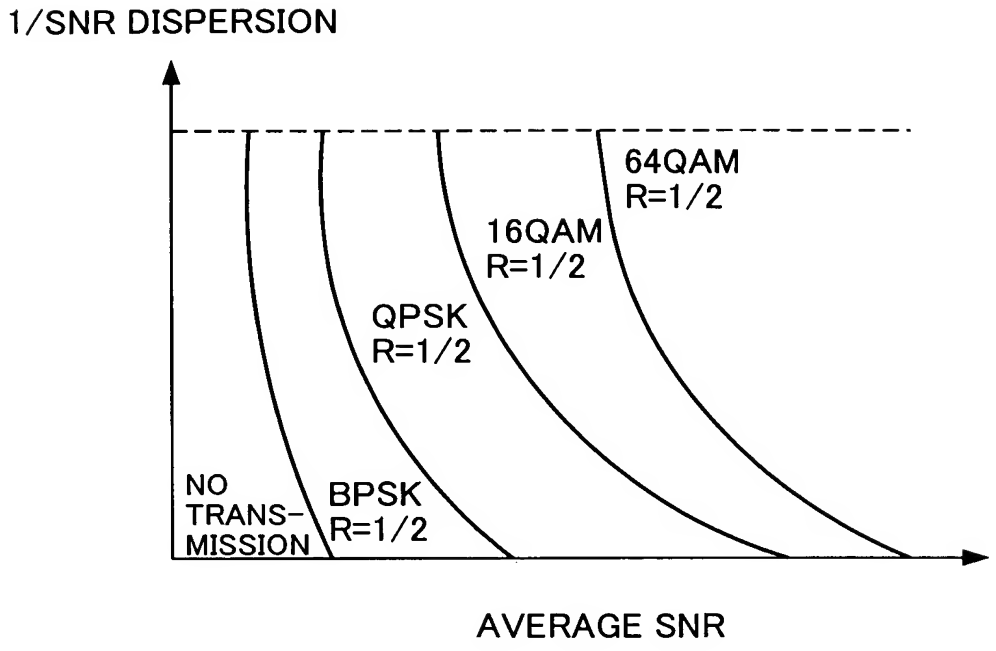
1/SNR DISPERSION
64QAM
R=1/2
16QAM
R=1/2
QPSK
R=1/2
NO
TRANS-
MISSION
BPSK
R=1/2
AVERAGE SNR

FIG.4

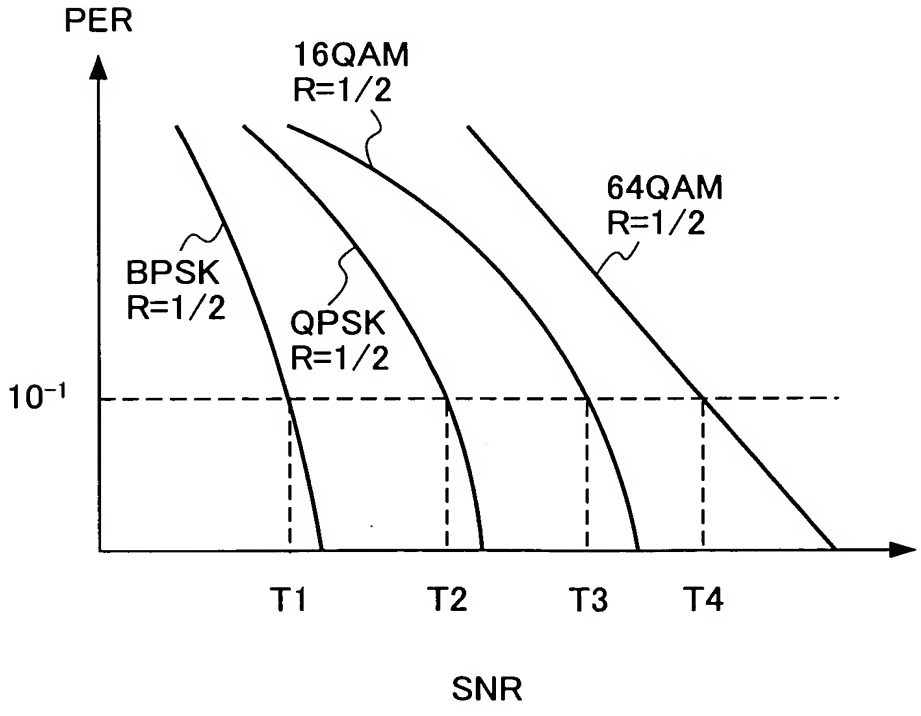
PER
16QAM
R=1/2
64QAM
R=1/2
BPSK
R=1/2
QPSK
R=1/2
10^{-1}
T1
T2
T3
T4
SNR

FIG.5

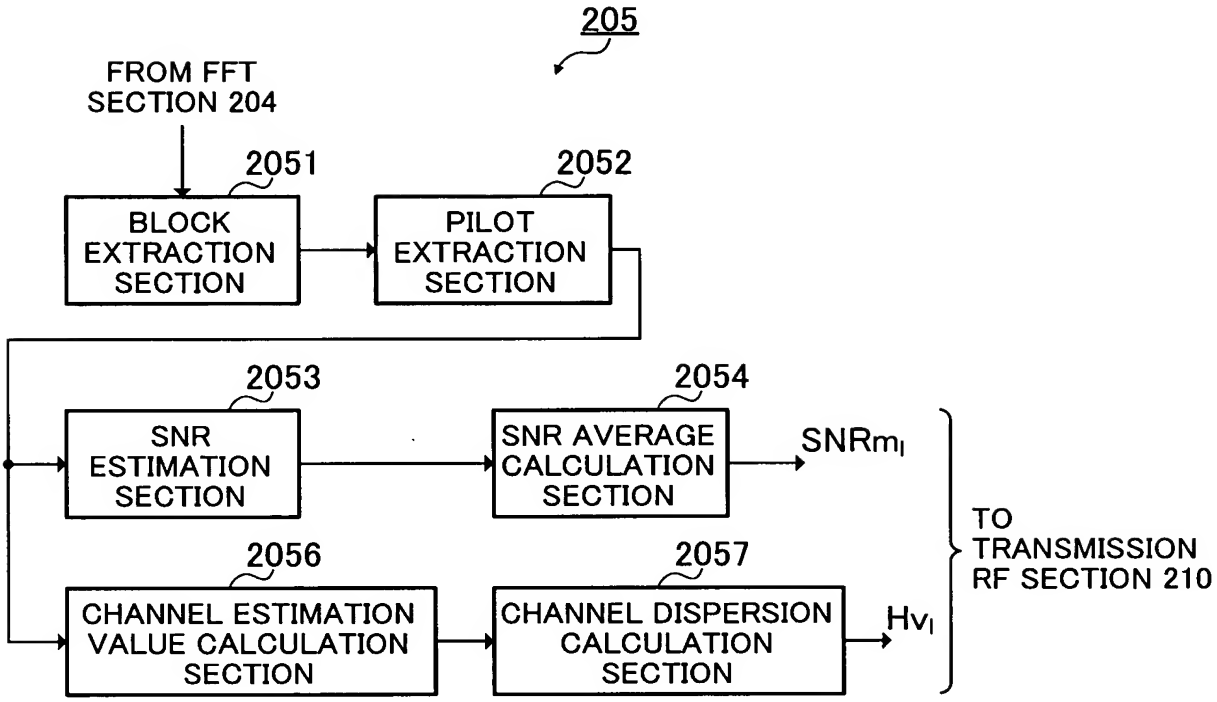
205
FROM FFT SECTION 204
2051
BLOCK EXTRACTION SECTION
2052
PILOT EXTRACTION SECTION
2053
SNR ESTIMATION SECTION
2054
SNR AVERAGE CALCULATION SECTION
SNRm_l
2056
CHANNEL ESTIMATION VALUE CALCULATION SECTION
2057
CHANNEL DISPERSION CALCULATION SECTION
Hv_l
TO TRANSMISSION RF SECTION 210

FIG.6

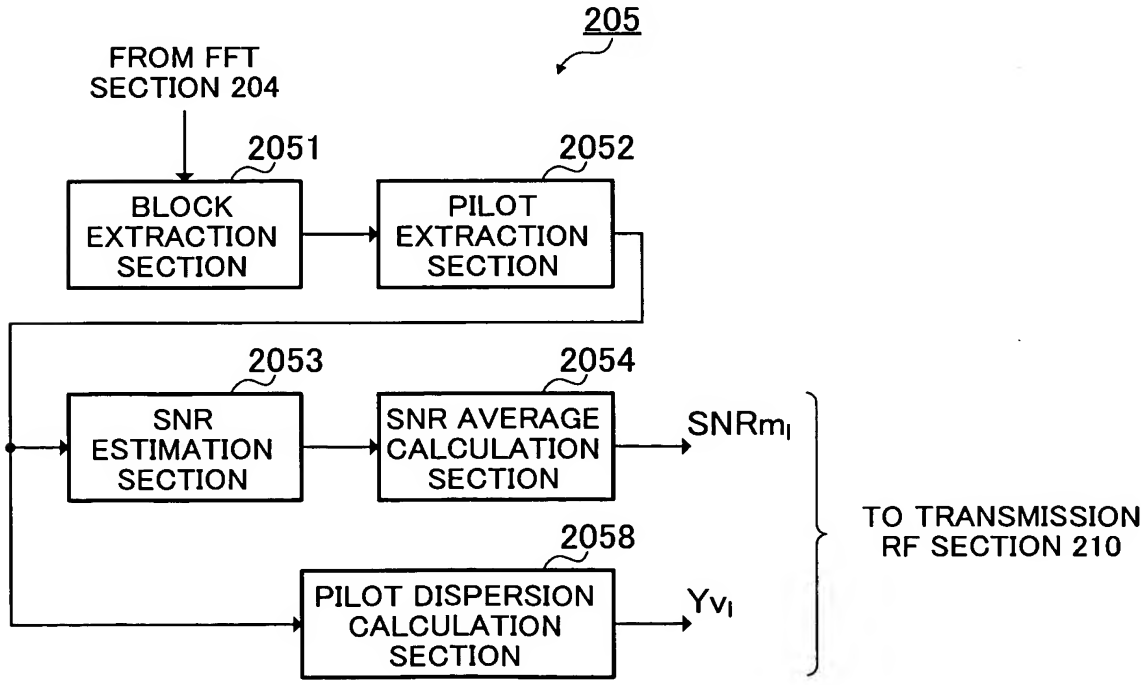
205
FROM FFT SECTION 204
2051
BLOCK EXTRACTION SECTION
2052
PILOT EXTRACTION SECTION
2053
SNR ESTIMATION SECTION
2054
SNR AVERAGE CALCULATION SECTION
SNRm_l
2058
PILOT DISPERSION CALCULATION SECTION
Yv_l
TO TRANSMISSION RF SECTION 210

FIG.7

SUBCARRIER NUMBER	SNR		
	CASE a	CASE b	CASE c
1	2	1	4
2	3	2	3
3	2	3	2
4	3	4	1
NORMALIZED SNR ERROR	0. 3	0. 3	0. 3

FIG.8